SHARP

MODEL

AR-NB2
AR-NB2 N

NETWORK EXPANSION KIT

SOFTWARE SETUP GUIDE
(for network printer)

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AR-M160/M205

SAFETY STANDARDS

<AR-NB2>

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

<AR-NB2/AR-NB2 N>

This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.

Η εγκατάσταση αυτή ανταποκρίνεται στις απαιτήσεις των οδηγιών της Ευρωπαϊκής Ενωσης 89/336/ΕΟΚ και 73/23/ΕΟΚ, όπως οι κανονισμοί αυτοί συμπληρώθηκαν από την οδηγία 93/68/ΕΟΚ.

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som kompletteras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.

The CE mark logo label is affixed on an equipment in case that the directives described in the above sentence are applicable to the product. (This sentence is not applicable in any country where the above directives are not required.)

Shielded cables must be used with this equipment to maintain compliance with standards.

<AR-NB2>

WARNING:
FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user is authority to operate this equipment.

Note:
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Notice for Users in Canada
This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

<AR-NB2 N>

For users in the USA
This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING:
FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice for Users in Canada
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Notice for Users in U.S.A.

Declaration of Conformity
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Model Number: AR-NB2 N
Responsible Party: SHARP ELECTRONICS CORPORATION
Sharp Plaza, Mahwah, New Jersey 07430-1163
TEL: 1-800-BE-SHARP

INTRODUCTION

This manual explains how to configure network settings and install and configure the software to enable the machine to be used as a network printer.

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- All other trademarks and copyrights are the property of their respective owners.

SOFTWARE LICENSE

The SOFTWARE LICENSE will appear when you install the software from the CD-ROM. By using all or any portion of the software on the CD-ROM or in the machine, you are agreeing to be bound by the terms of the SOFTWARE LICENSE.

Note

- The explanations of screens and procedures in this manual are primarily for Windows® XP in Windows® environments, and Mac OS X v10.2 in Macintosh environments. The screens may vary in other versions of the operating systems.
- The explanations in this manual are based on the North American version of the software. Versions for other countries and regions may vary slightly from the North American version.
- This manual refers to the digital multifunctional system AR-M160/M205 as "the machine".
- Where "AR-XXXX" appears in this manual, please substitute the name of your model for "XXXX". For the name of your model, see "DIFFERENCES BETWEEN MODELS" in the operation manual for copier.
- The PS3 expansion kit (AR-PK1) mentioned in this manual is an option.

The display screens, messages, and key names shown in the manual may differ from those on the actual machine due to product improvements and modifications.

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USING THE MACHINE IN A WINDOWS ENVIRONMENT

CD-ROMS IN THE NETWORK EXPANSION KIT

The network expansion kit contains the following three CD-ROMs: "Software", "Network Utilities", and "Sharpdesk LT".

1. "Software" CD-ROM

The "Software" CD-ROM contains the following software programs:

- **Printer driver**
  The printer driver enables you to use the printer function of the machine.
  The CD-ROM contains the PCL6 and PCL5e printer drivers*1 and the PS printer driver*2.
- **Printer Status Monitor**
  This allows you to check the status of the network printer on your computer screen.
- **Printer Administration Utility*3**
  This is a utility that allows administrators to check the status of the printer and change settings.
- **NICManager**
  This is used to configure and check the IP address of the machine, which is used when the machine is connected to a network.
- **Acrobat Reader 5.0**
  Software that allows you to view the online printer manual on your computer.

Caution **The printer driver, Printer Status Monitor, Printer Administration Utility, and NICManager utility on the "Software" CD-ROM cannot be used when the machine is connected to your computer by a USB or parallel cable.**

*1 It is recommended that you use the PCL6 printer driver. If you have a problem printing from older software using the PCL6 printer driver, use the PCL5e printer driver.

*2 To use the PS printer driver, the PS3 expansion kit must be installed.

*3 If you are installing the Printer Administration Utility in Windows 95, a system file must be updated before the utility can be installed. For more information, click the "Display Readme" button in the Software Selection window of the installer. (p.21)

2. "Network Utilities" CD-ROM

This CD-ROM contains "Quick Setup" and "Standard Setup (NICManager)" which are used to configure network settings, "SC-Print2000" which is used to create an LPR port, and an online manual that explains network settings.
The online manual on the CD-ROM explains how to configure settings on a network other than a TCP/IP network, such as a Netware, AppleTalk, or NetBEUI network.

Note

- SC-Print2000 is only used to create an LPR port in Windows 95/98/Me. If the printer driver is installed as explained in this manual, the LPR port is created automatically and thus there is normally no need to use SC-Print2000.
- NICManager is also contained in the "Software" CD-ROM. If the network settings are configured as explained in this manual, NICManager in the "Software" CD-ROM is used to configure machine settings.

Caution

- **The term "Print Server Card" appears in the "Network Utilities" CD-ROM. Where "Print Server Card" appears, please substitute "Network expansion kit".**
- **If you use the "Network Utilities" CD-ROM to configure network settings, be sure to check the machine's Ethernet address (MAC address) by printing out the Printer Setting List as explained in "CHECKING THE IP ADDRESS". (The message that appears in the CD-ROM utility is not relevant.)**

3. "Sharpdesk LT" CD-ROM

Install Sharpdesk LT (for Windows) from this CD-ROM. Sharpdesk LT is a desktop document management application that makes it easy to start applications and file documents and images. For information on the "Sharpdesk LT" CD-ROM and the procedure for installing Sharpdesk LT, see operation manual for network scanner (PDF format).

HARDWARE AND SOFTWARE REQUIREMENTS

Check the following hardware and software requirements before installing the software.

Computer type	IBM PC/AT or compatible computer equipped with a 10Base-T/100Base-TX LAN board
Operating system	Windows 95*1, Windows 98, Windows Me, Windows NT Workstation 4.0 (Service Pack 5 or later)*2, Windows 2000 Professional*2, Windows XP Professional*2, Windows XP Home Edition*2
Other hardware requirements	An environment that allows any of the above operating systems to fully operate

*1 If you are installing the Printer Administration Utility in Windows 95, a system file must be updated before the utility can be installed. For more information, click the "Display Readme" button in the Software Selection window of the installer.

*2 Administrator's rights are required to install the software using the installer.

USING THE MACHINE IN A MACINTOSH ENVIRONMENT

To use the machine as a printer for the Macintosh, the PS3 expansion kit AR-PK1 must be installed. Install the PPD file needed to use the machine as a printer from the "Software" CD-ROM that accompanied the network expansion kit.

CD-ROMS IN THE NETWORK EXPANSION KIT

In a Macintosh environment, use the "Software" and "Network Utilities" CD-ROMs that are contained in the network expansion kit.

1. "Software" CD-ROM

The "Software" CD-ROM contains the following software programs:

- **PPD file**
  A Macintosh computer refers to the PPD file when using a printer driver for printing.
- **Acrobat Reader 4.05**
  Software that allows you to view the online printer manual on your computer.

Caution **The PPD file on the "Software" CD-ROM cannot be used when the machine is connected to your computer with a USB or parallel cable.**

2. "Network Utilities" CD-ROM

The "Network Utilities" CD-ROM contains the following software programs:

- **PSC Setup Utility**
  This is a utility that lets you configure the machine's network settings from a Macintosh.

Caution **The term "Print Server Card" appears in the "Network Utilities" CD-ROM. Where "Print Server Card" appears, please substitute "Network expansion kit".**

HARDWARE AND SOFTWARE REQUIREMENTS

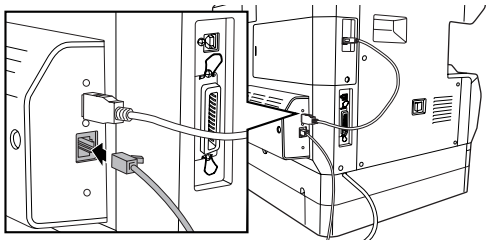
You will need the following hardware and software in order to install the PPD file for Macintosh.

Operating system	Mac OS 8.6 to 9.x, 10.1.5, and 10.2 to 10.2.8 (except 10.2.2)
CPU and RAM	Requirements of the operating system must be satisfied.

Note If you are using Mac OS 8.6 to 9.x, make sure that LaserWriter8 has been installed and that the "LaserWriter8" checkbox is selected (☒) in "Extensions Manager" in "Control Panels". If not, install it from the system CD-ROM supplied with your Macintosh computer.

CONNECTING TO A NETWORK

After the network expansion kit has been installed in the machine, connect a LAN cable to the LAN connector of the network expansion kit.
Use a network cable that is shielded.



HOW TO RESET THE NETWORK EXPANSION KIT

To reset the network expansion kit, turn on the power while holding down the status button on the network expansion kit. Continue to hold down the status button until a beep sounds.

Caution Network scanner destination information and scanning settings will remain after the network expansion kit is reset, however, the network settings and printer settings will revert to the factory default settings.

INSTALLATION ENVIRONMENT AND INSTALLATION PROCEDURE

This manual explains the procedures for installing the software in a Windows environment (TCP/IP network environment) and in a Macintosh environment.
Refer to the following table for the appropriate procedure for your environment.

Function	Operating system	Procedure to follow
Printer function	Windows environment	1. "SETTING THE IP ADDRESS OF THE MACHINE" (p.11) 2. "INSTALLING THE SOFTWARE" (p.14)
	Macintosh environment	1. "INSTALLING THE PPD FILE" (p.25) 2. "CONFIGURING THE PRINTER DRIVER" (p.28)
Network scanner function	Windows environment	1. "SETTING THE IP ADDRESS OF THE MACHINE" (p.11) 2. Settings required for the network scanner function (See operation manual for network scanner)

SETTING THE IP ADDRESS OF THE MACHINE

Before installing the printer driver, be sure to set the IP address of the machine. Consult your network administrator for the correct IP address, subnet mask, and default gateway to be entered. **If a DHCP server will automatically assign an IP address to the machine, the following procedure is not necessary.** (To check the IP address assigned to the machine by DHCP, see "CHECKING THE IP ADDRESS" (p.13).)

Caution

- **If the machine is used in a DHCP environment, the machine's IP address may change automatically. If this happens, printing will no longer be possible. In this event, use a WINS server or do not use the machine in a DHCP environment.**
- **If it becomes necessary to move the machine to a different network after the IP address has been set, use either of the following methods to change the IP address setting before moving the machine:**
  1) **Set the IP address for the new network while the machine is still connected to the old network.**
  2) **Reset the network expansion kit (see "HOW TO RESET THE NETWORK EXPANSION KIT" on page 9).**

  If the machine is moved to the new network while the old IP address is still set, the machine will not be detected and it will not be possible to set the new IP address.

1 **Make sure that the LAN cable is connected to the machine and then turn on the machine.**

2 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

3 **Click the "start" button, click "My Computer" ( ), and then double-click the CD-ROM icon ( ).**
In Windows 95/98/Me/NT 4.0/2000, double-click "My Computer" and then double-click the CD-ROM icon.

4 **Double-click the "setup" icon ( ).**

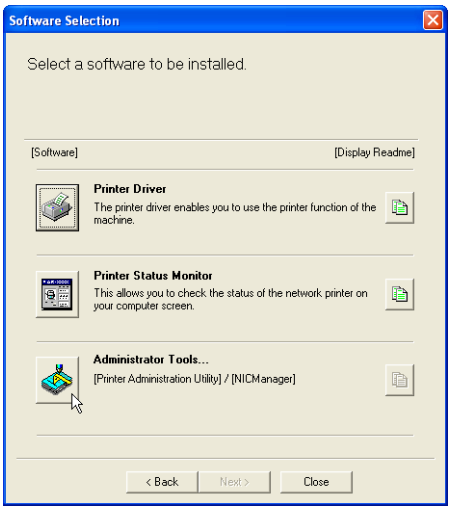
Note

If the language selection screen appears after you double click the "setup" icon, select the language that you wish to use and click the "Next" button. (Normally the correct language is selected automatically.)

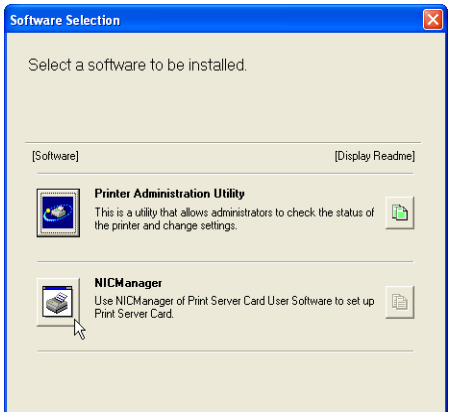
5 **The "SOFTWARE LICENSE" window will appear. Make sure that you understand the contents of the license agreement, and then click the "Yes" button.**

6 **Read the message in the "Welcome" window and then click the "Next" button.**

7 **Click the "Administrator Tools" button.**


Software Selection
Select a software to be installed.
[Software]
[Display Readme]
Printer Driver
The printer driver enables you to use the printer function of the machine.
Printer Status Monitor
This allows you to check the status of the network printer on your computer screen.
Administrator Tools...
[Printer Administration Utility] / [NICManager]
< Back
Next >
Close

8 **Click the "NICManager" button.**

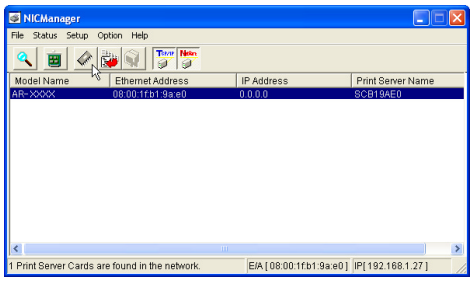

Software Selection
Select a software to be installed.
[Software]
[Display Readme]
Printer Administration Utility
This is a utility that allows administrators to check the status of the printer and change settings.
NICManager
Use NICManager of Print Server Card User Software to set up Print Server Card.

9 **The printer or printers connected to the network will be detected. Click the printer to be configured (the machine).**
Select the "AR-XXXX".

Note

If the machine is not found, make sure that the machine is powered on and connected to your computer and then search again.

10 **Click the "Print Server Card Setup" button.**
If the machine is being used in a DHCP environment or the IP address has otherwise already been set, go to step 15.



11 **If the IP address has not been set (the IP address is set to "0.0.0.0"), a message will appear prompting you to set the IP address. Click the "Yes" button.**

12 **Enter the IP address and click the "OK" button.**
The machine's IP address is changed.
A password entry screen will appear while the IP address is being changed. Enter the password and click the "OK" button.
The password for this product has been initially set to "Sharp".

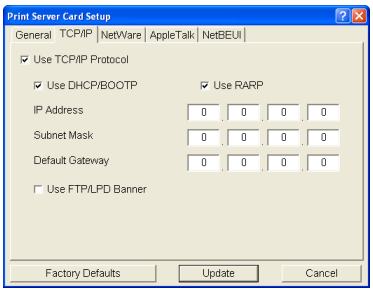
13 **Restart the machine.**
Power off the machine and then power it back on.

14 **Select "Search" from the "File" menu, select the machine, and then click the "Print Server Card Setup" button.**

15 **Enter your password in the password entry screen and click "OK".**
The Print Server Card Setup window will appear.
The password for this product has been initially set to "Sharp".
If the "Guest user" checkbox is selected, the settings can be viewed but not configured.

16 **Click the "TCP/IP" tab.**

17 **Configure the settings and then click the "Update" button.**



Be sure to ask your network administrator for the correct IP address, subnet mask, and default gateway to be entered.

18 **Your changes to the settings appear. Make sure that the changes are correct and then click the "OK" button.**

19 **Restart the machine.**
Power off the machine and then power it back on.

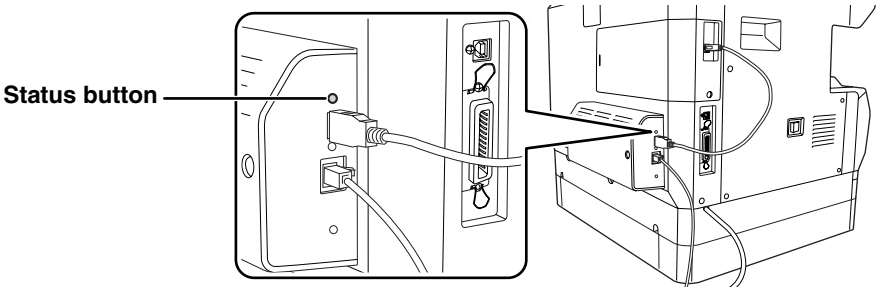
20 **Select "Search" from the "File" menu.**
The IP address that you entered will appear. Make sure that it is correct.

The completes the IP address settings.

Windows

CHECKING THE IP ADDRESS

To check the IP address of the machine, hold down the status button on the network expansion kit at least 2 seconds to print out a Printer Setting List.



INSTALLING THE SOFTWARE

INSTALLING THE PRINTER DRIVER (Standard installation)

Note If you wish to install the display font or specify the machine's IP address when installing the printer driver, select "Custom installation" (p.16).

Caution **To use the machine as a network printer in Windows NT 4.0, "TCP/IP Protocol" and "Microsoft TCP/IP printing" must be installed in your computer. Check to make sure these components are installed. If they are not installed, see Windows NT 4.0 Help to install them.**

1 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

2 **Click the "start" button, click "My Computer" ( ), and then double-click the CD-ROM icon ( ).**
In Windows 95/98/Me/NT 4.0/2000, double-click "My Computer" and then double-click the CD-ROM icon.

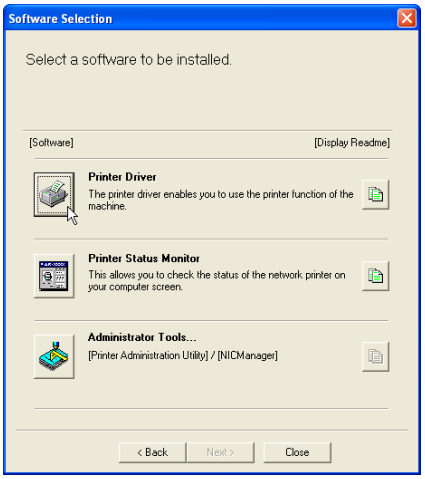
3 **Double-click the "setup" icon ( ).**

Note If the language selection screen appears after you double click the "setup" icon, select the language that you wish to use and click the "Next" button. (Normally the correct language is selected automatically.)

4 **The "SOFTWARE LICENSE" window will appear. Make sure that you understand the contents of the license agreement, and then click the "Yes" button.**

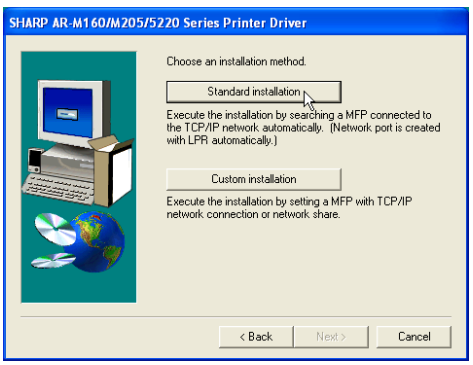
5 **Read the message in the "Welcome" window and then click the "Next" button.**

6 **Click the "Printer Driver" button.**
To view information on the software, click the "Display Readme" button.


Software Selection
Select a software to be installed.
[Software]
[Display Readme]
Printer Driver
The printer driver enables you to use the printer function of the machine.
Printer Status Monitor
This allows you to check the status of the network printer on your computer screen.
Administrator Tools...
[Printer Administration Utility] / [NICManager]
< Back
Next >
Close

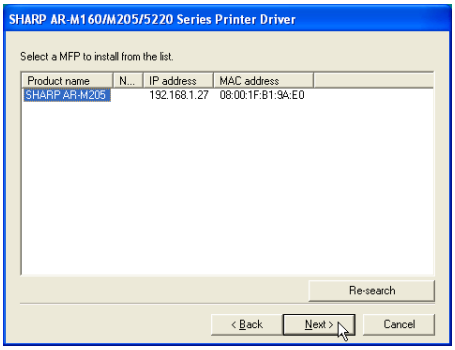
7 **Click the "Next" button.**

8 **Click the "Standard installation" button.**


SHARP AR-M160/M205/5220 Series Printer Driver
Choose an installation method.
Standard installation
Execute the installation by searching a MFP connected to the TCP/IP network automatically. (Network port is created with LPR automatically.)
Custom installation
Execute the installation by setting a MFP with TCP/IP network connection or network share.
< Back
Next >
Cancel

Windows

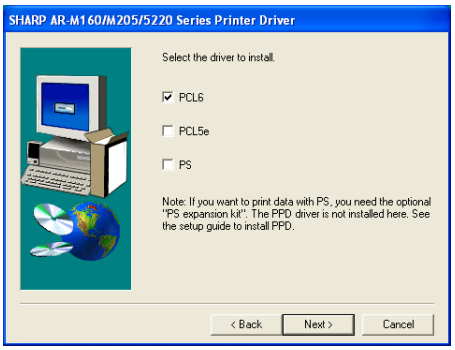
9 **Printers connected to the network are detected. Select the machine and click the "Next" button.**



Note: If the machine is not found, make sure that the machine is powered on and connected to your computer and then search again. If the machine is still not found, use the custom installation procedure to directly specify the IP address (p.16).

10 **A confirmation window appears. Check the contents and then click the "Next" button.**

11 **When the printer driver selection window appears, select the printer driver to be installed and click the "Next" button.**
Select the checkboxes of the printer drivers to be installed.


SHARP AR-M160/M205/5220 Series Printer Driver
Select the driver to install.
PCL6
PCL5e
PS
Note: If you want to print data with PS, you need the optional "PS expansion kit". The PPD driver is not installed here. See the setup guide to install PPD.
< Back
Next >
Cancel

Note: To use the PS printer driver, the PS3 expansion kit must be installed.

12 **Select whether or not you wish the printer to be your default printer and click the "Next" button.**
If you are installing multiple printer drivers, select the printer that you wish to use as your default printer.
If you do not wish to set either printer driver as the default printer, select "No".

13 **Click the "Next" button.**
Begin installation of the printer driver.

Caution: **If you are running Windows 2000/XP and a warning message appears regarding the Windows logo test or digital signature, be sure to click "Continue Anyway" or "Yes".**

14 **When "The installation of the SHARP software is complete" appears, click the "OK" button.**

15 **Click the "Close" button.**

Note: After the installation, a message prompting you to restart your computer may appear. In this case, click the "Yes" button to restart your computer.

This completes the installation of the software.

- After installation, see "CONFIGURING THE PRINTER DRIVER" (p.24) to check the printer driver settings.
- To install the Printer Status Monitor or Printer Administration Utility, see the following pages:
  Printer Status Monitor: p.20
  Printer Administration Utility: p.21

Note: If you installed the PS printer driver, the PS display font can be installed from the "PRINTER UTILITIES" CD-ROM that accompanied the PS3 expansion kit. (p.22)

Windows

CUSTOM INSTALLATION

If you wish to install the display font or specify the machine's IP address when installing the printer driver, select "Custom installation".

1 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

2 **Click the "start" button, click "My Computer" ( ), and then double-click the CD-ROM icon ( ).**
In Windows 95/98/Me/NT 4.0/2000, double-click "My Computer" and then double-click the CD-ROM icon.

3 **Double-click the "setup" icon ( ).**

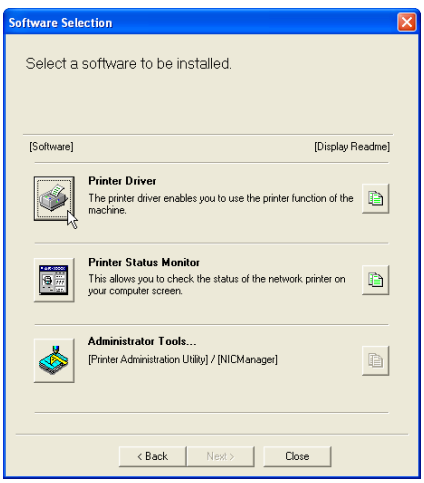
Note

If the language selection screen appears after you double click the "setup" icon, select the language that you wish to use and click the "Next" button. (Normally the correct language is selected automatically.)

4 **The "SOFTWARE LICENSE" window will appear. Make sure that you understand the contents of the license agreement, and then click the "Yes" button.**

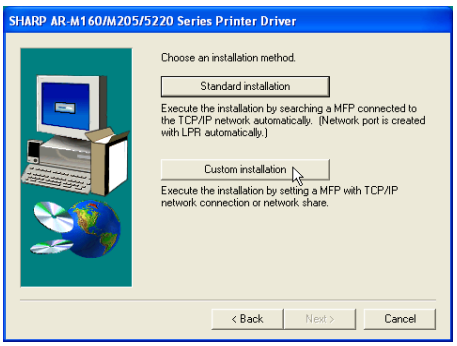
5 **Read the message in the "Welcome" window and then click the "Next" button.**

6 **Click the "Printer Driver" button.**
To view information on the software, click the "Display Readme" button.


Software Selection
Select a software to be installed.
[Software]
[Display Readme]
Printer Driver
The printer driver enables you to use the printer function of the machine.
Printer Status Monitor
This allows you to check the status of the network printer on your computer screen.
Administrator Tools...
[Printer Administration Utility] / [NICManager]
< Back
Next >
Close

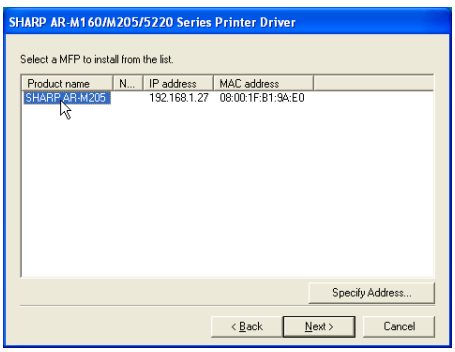
7 **Click the "Next" button.**

8 **Click the "Custom installation" button.**


SHARP AR-M160/M205/5220 Series Printer Driver
Choose an installation method.
Standard installation
Execute the installation by searching a MFP connected to the TCP/IP network automatically. (Network port is created with LPR automatically.)
Custom installation
Execute the installation by setting a MFP with TCP/IP network connection or network share.
< Back
Next >
Cancel

9 **Select "LPR Direct Print" and click the "Next" button.**

10 **Printers connected to the network are detected. Select the machine and click the "Next" button.**

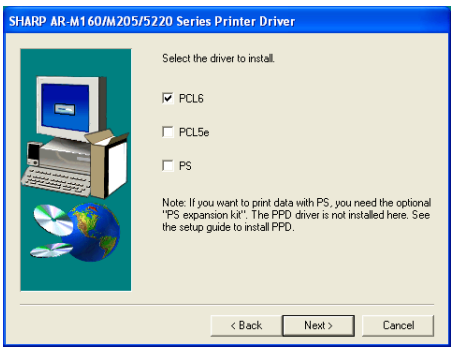


If you wish to specify the IP address, click the "Specify address" button, enter the IP address, and click the "Search" button.

11 **A confirmation window appears. Check the contents and then click the "Next" button.**

Windows

12 **When the printer driver selection window appears, select the printer driver to be installed and click the "Next" button.**
Select the checkboxes of the printer drivers to be installed.

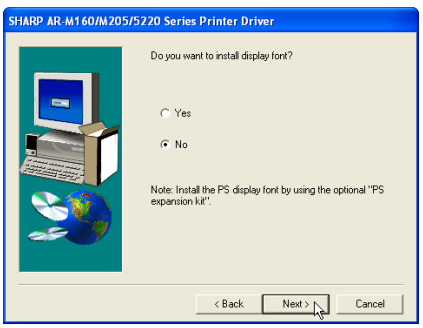

SHARP AR-M160/M205/5220 Series Printer Driver
Select the driver to install.
PCL6
PCL5e
PS
Note: If you want to print data with PS, you need the optional "PS expansion kit". The PPD driver is not installed here. See the setup guide to install PPD.
< Back
Next >
Cancel

Note To use the PS printer driver, the PS3 expansion kit must be installed.

13 **Select whether or not you wish the printer to be your default printer and click the "Next" button.**
If you are installing multiple printer drivers, select the printer that you wish to use as your default printer.
If you do not wish to set either printer driver as the default printer, select "No".

14 **When the window for entering a printer name appears, click the "Next" button.**
If you wish to change the printer name, enter the desired name.

15 **Select whether or not you wish to install the display font and click the "Next" button.**


SHARP AR-M160/M205/5220 Series Printer Driver
Do you want to install display font?
Yes
No
Note: Install the PS display font by using the optional "PS expansion kit".
< Back
Next >
Cancel

16 **Click the "Next" button.**
Begin installation of the printer driver.

Caution **If you are running Windows 2000/XP and a warning message appears regarding the Windows logo test or digital signature, be sure to click "Continue Anyway" or "Yes".**

17 **When "The installation of the SHARP software is complete" appears, click the "OK" button.**

18 **Click the "Close" button.**

Note After the installation, a message prompting you to restart your computer may appear. In this case, click the "Yes" button to restart your computer.

This completes the installation of the software.

- After installation, see "CONFIGURING THE PRINTER DRIVER" (p.24) to check the printer driver settings.
- To install the Printer Status Monitor or Printer Administration Utility, see the following pages:
  Printer Status Monitor: p.20
  Printer Administration Utility: p.21

Note If you installed the PS printer driver, the PS display font can be installed from the "PRINTER UTILITIES" CD-ROM that accompanied the PS3 expansion kit. (p.22)

Windows

SHARING THE PRINTER USING WINDOWS NETWORKING

If the machine will be used as a shared printer on a network, follow these steps to install the printer driver in the client computer.

> **Note**
> To configure the appropriate settings in the print server, see the operation manual or help file of your operating system.
> "Print server" as explained here, is a computer that is directly connected to the machine, and a "Client" is any other computer that is connected to the same network.

1 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

2 **Click the "start" button, click "My Computer" ( ), and then double-click the CD-ROM icon ( ).**
In Windows 95/98/Me/NT 4.0/2000, double-click "My Computer" and then double-click the CD-ROM icon.

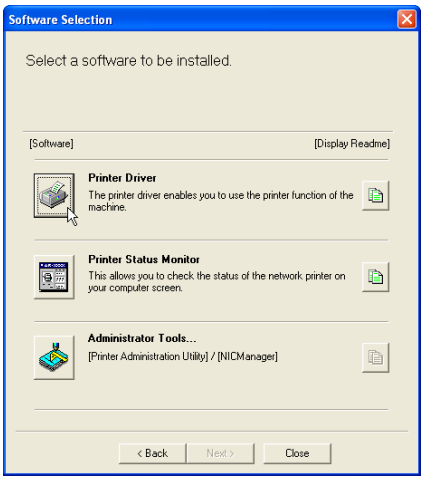
3 **Double-click the "setup" icon ( ).**

> **Note**
> If the language selection screen appears after you double click the "setup" icon, select the language that you wish to use and click the "Next" button. (Normally the correct language is selected automatically.)

4 **The "SOFTWARE LICENSE" window will appear. Make sure that you understand the contents of the license agreement, and then click the "Yes" button.**

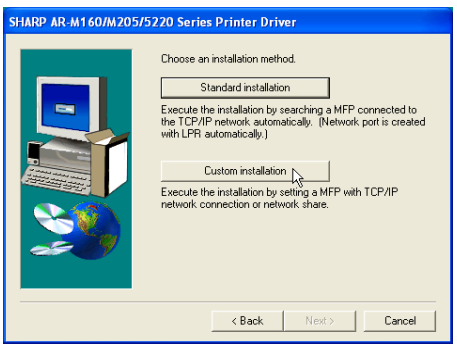
5 **Read the message in the "Welcome" window and then click the "Next" button.**

6 **Click the "Printer Driver" button.**
To view information on the software, click the "Display Readme" button.


Software Selection
Select a software to be installed.
[Software]
[Display Readme]
Printer Driver
The printer driver enables you to use the printer function of the machine.
Printer Status Monitor
This allows you to check the status of the network printer on your computer screen.
Administrator Tools...
[Printer Administration Utility] / [NICManager]
< Back
Next >
Close

7 **Click the "Next" button.**

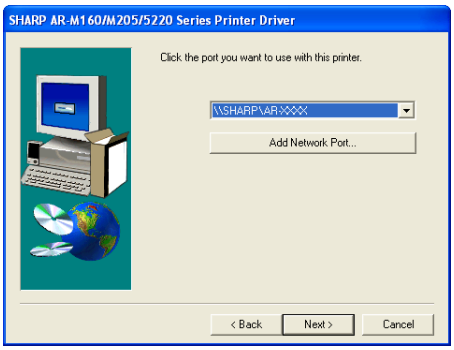
8 **Click the "Custom installation" button.**


SHARP AR-M160/M205/5220 Series Printer Driver
Choose an installation method.
Standard installation
Execute the installation by searching a MFP connected to the TCP/IP network automatically. (Network port is created with LPR automatically.)
Custom installation
Execute the installation by setting a MFP with TCP/IP network connection or network share.
< Back
Next >
Cancel

9 **Select "Shared Printer" and click the "Next" button.**

10 For the port to be used, select the machine set as a shared printer, and click the "Next" button.

You can also click the "Add Network Port" button and select the printer to be shared (the machine) by browsing the network in the window that appears.

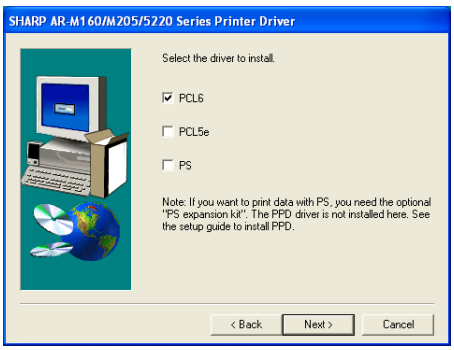

SHARP AR-M160/M205/5220 Series Printer Driver
Click the port you want to use with this printer.
\\SHARP\AR-XXXX
Add Network Port...
< Back
Next >
Cancel

Note If the shared printer does not appear in the list, check the settings in the printer server.

11 When the model selection window appears, select model name of your machine and click the "Next" button.

12 When the printer driver selection window appears, select the printer driver to be installed and click the "Next" button.

Be sure to select the same printer driver as the printer driver used in the print server (the machine).


SHARP AR-M160/M205/5220 Series Printer Driver
Select the driver to install.
PCL6
PCL5e
PS
Note: If you want to print data with PS, you need the optional "PS expansion kit". The PPD driver is not installed here. See the setup guide to install PPD.
< Back
Next >
Cancel

13 Follow the on-screen instructions.

Note After the installation, a message prompting you to restart your computer may appear. In this case, click the "Yes" button to restart your computer.

This completes the installation of the software.

- After installation, see "CONFIGURING THE PRINTER DRIVER" (p.24) to check the printer driver settings.
- To install the Printer Status Monitor or Printer Administration Utility, see the following pages:
  Printer Status Monitor: p.20
  Printer Administration Utility: p.21

Note If you installed the PS printer driver, the PS display font can be installed from the "PRINTER UTILITIES" CD-ROM that accompanied the PS3 expansion kit. (p.22)

Windows

INSTALLING THE PRINTER STATUS MONITOR

1 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

2 **Click the "start" button, click "My Computer" ( ), and then double-click the CD-ROM icon ( ).**
In Windows 95/98/Me/NT 4.0/2000, double-click "My Computer" and then double-click the CD-ROM icon.

3 **Double-click the "setup" icon ( ).**

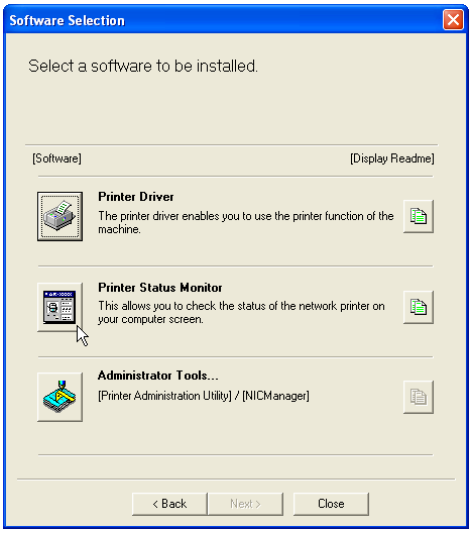
Note

If the language selection screen appears after you double click the "setup" icon, select the language that you wish to use and click the "Next" button. (Normally the correct language is selected automatically.)

4 **The "SOFTWARE LICENSE" window will appear. Make sure that you understand the contents of the license agreement, and then click the "Yes" button.**

5 **Read the message in the "Welcome" window and then click the "Next" button.**

6 **Click the "Printer Status Monitor" button.**
To view information on the software, click the "Display Readme" button.


Software Selection
Select a software to be installed.
[Software]
[Display Readme]
Printer Driver
The printer driver enables you to use the printer function of the machine.
Printer Status Monitor
This allows you to check the status of the network printer on your computer screen.
Administrator Tools...
[Printer Administration Utility] / [NICManager]
< Back
Next >
Close

7 **Follow the on-screen instructions.**

Windows

INSTALLING THE PRINTER ADMINISTRATION UTILITY

1 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

2 **Click the "start" button, click "My Computer" ( ), and then double-click the CD-ROM icon ( ).**
In Windows 95/98/Me/NT 4.0/2000, double-click "My Computer" and then double-click the CD-ROM icon.

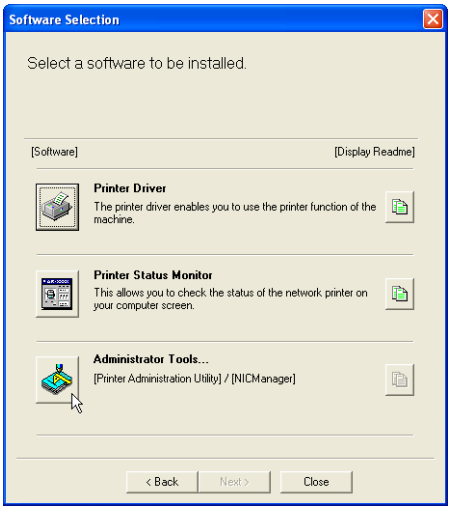
3 **Double-click the "setup" icon ( ).**

Note
If the language selection screen appears after you double click the "setup" icon, select the language that you wish to use and click the "Next" button. (Normally the correct language is selected automatically.)

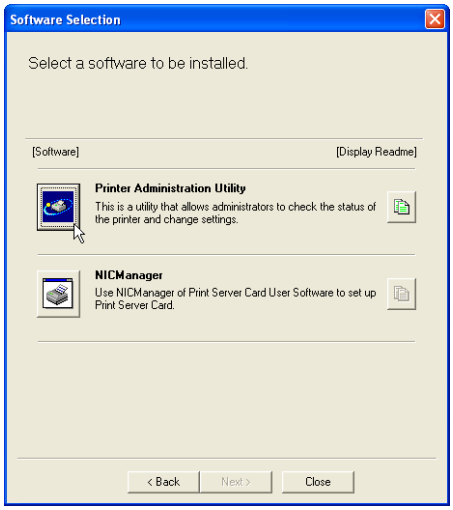
4 **The "SOFTWARE LICENSE" window will appear. Make sure that you understand the contents of the license agreement, and then click the "Yes" button.**

5 **Read the message in the "Welcome" window and then click the "Next" button.**

6 **Click the "Administrator Tools" button.**


Software Selection
Select a software to be installed.
[Software]
[Display Readme]
Printer Driver
The printer driver enables you to use the printer function of the machine.
Printer Status Monitor
This allows you to check the status of the network printer on your computer screen.
Administrator Tools...
[Printer Administration Utility] / [NICManager]
< Back
Next >
Close

7 **Click the "Printer Administration Utility" button.**
To view information on the software, click the "Display Readme" button.


Software Selection
Select a software to be installed.
[Software]
[Display Readme]
Printer Administration Utility
This is a utility that allows administrators to check the status of the printer and change settings.
NICManager
Use NICManager of Print Server Card User Software to set up Print Server Card.
< Back
Next >
Close

Note
If you are installing the Printer Administration Utility in Windows 95, a system file must be updated before the utility can be installed. For more information, click the "Display Readme" button.

8 **Follow the on-screen instructions.**

Windows

INSTALLING THE PS DISPLAY FONTS

The fonts used by the PS printer driver are contained in the "PRINTER UTILITIES" CD-ROM that accompanied the PS3 expansion kit (AR-PK1). Install these fonts as needed for the PS printer driver.

1 **Insert the PS3 expansion kit AR-PK1 PRINTER UTILITIES CD-ROM into your computer's CD-ROM drive.**
If your computer is configured for auto start on the CD-ROM, proceed to step 4.

2 **Click the "start" button, click "My Computer" ( ), and then double-click the CD-ROM icon ( ).**
In Windows 95/98/Me/NT 4.0/2000, double-click "My Computer", and then double-click the CD-ROM icon.

3 **Double-click the "setup" icon ( ).**

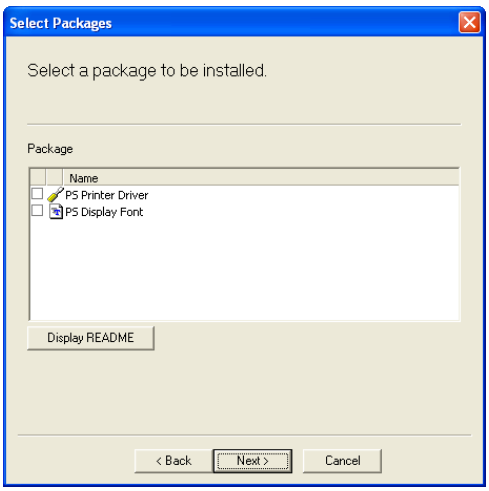
Note

If the language selection screen appears after you double click the "setup" icon, select the language that you wish to use and click the "Next" button. (Normally the correct language is selected automatically.)

4 **Select the "PS Display Font" checkbox and click the "Next" button.**

Caution

Do not select "PS Printer Driver". The PS printer driver for the machine should only be installed from the CD-ROM that accompanies the network expansion kit.



5 **Follow the on-screen instructions.**

Windows

USING THE PPD FILE

The PPD file enables the machine to print using the standard PS driver of the operating system, and can be used when the optional PS3 expansion kit AR-PK1 is installed. Install the PPD file as needed. Use the Add Printer Wizard in Windows to install the PPD file.
Be sure to read the Readme file before installing the PPD file. The Readme file is in the "EnglishA" or "English" folder. For the location of the folder, see step 4.

1 **Click the "start" button, click "Control Panel", click "Printers and Other Hardware", and then click "Printers and Faxes".**
In operating systems other than Windows XP, click the "Start" button, select "Settings", and then click "Printers".

2 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

3 **Click "Add a printer" in "Printer Tasks".**

In Windows 95/98/Me/NT 4.0/2000, double-click the "Add Printer" icon.
The "Add Printer Wizard" will appear.

4 **Follow the on-screen instructions.**
When you are asked to specify the path of the PPD file, enter the path as follows. (Substitute the letter of your CD-ROM drive for "R" in the following paths.)

Operating system	PPD file path
Windows 95/98/Me	R:\Drivers\Printer \EnglishA\PPD\9XME
Windows NT 4.0	R:\Drivers\Printer \EnglishA\PPD\NT40
Windows 2000/XP	R:\Drivers\Printer \EnglishA\PPD\2KXP

* In regions other than the U.S., enter "English" instead of "EnglishA".

Installing the resident font information for PPD (only when the PPD file is installed in Windows 95/98/Me)

If you have installed the PPD file in Windows 95/98/Me and will be using the resident font, you must install resident font information for PPD. Follow the procedure below to install the resident fonts information.

Note
- If you are using Windows 2000 or Windows XP, the resident font information is automatically installed when the PPD file is installed.
- Before installing the resident font information, be sure to install the PPD file.

1 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

2 **Double-click "My Computer" ( ), and then double-click the CD-ROM icon ( ).**

3 **Double-click the "Drivers" folder, the "Printer" folder, the "EnglishA" folder (for regions other than the U.S., double-click the "English" folder), the "PPD" folder, the "9XME" folder, and "PFMSetup.exe".**

4 **Follow the on-screen instructions.**

5 **After the resident font information has been installed, restart your computer.**

Note
If printer resident fonts cannot be specified from the application software, the resident font information has not been installed or the information is not correct. In this case, reinstall the resident font information.

CONFIGURING THE PRINTER DRIVER

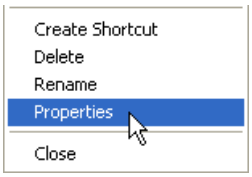
After installing the printer driver, you must configure the printer driver settings appropriately for the number of paper trays on the machine and the size of paper loaded in each tray.

1 Click the "start" button, click "Control Panel", click "Printers and Other Hardware", and then click "Printers and Faxes".

In operating systems other than Windows XP, click the "Start" button, select "Settings", and then click "Printers".

2 Click the "SHARP AR-XXXX" printer driver icon and select "Properties" from the "File" menu.

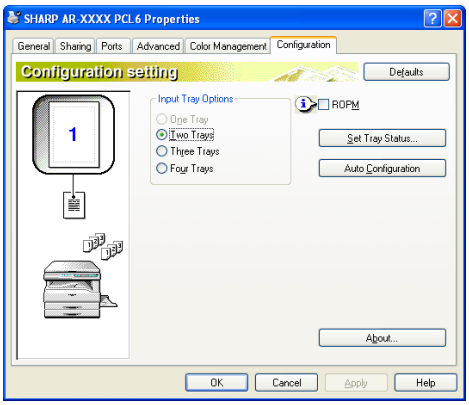
If you are using Windows NT 4.0/2000/XP, go to step 4.



3 In Windows 95/98/Me, click the "Setup" tab.

4 Click the "Configuration" tab and set the printer configuration based on the options that have been installed.

Set the printer configuration properly. Otherwise, printing may not take place correctly.



Note: To automatically configure the settings based on the detected machine status, click the "Auto Configuration" button.

5 Click the "Set Tray Status" button and set the size and type of paper loaded in each tray.

Select a tray in the "Paper source" menu, and select the size of paper loaded in that tray from the "Set Paper Size" menu. Repeat for each tray.

6 Click the "OK" button in the "Set Tray Status" window.

7 Click the "OK" button in the printer properties window.

Windows

APPLETALK SETTINGS

After connecting the machine to the network, configure AppleTalk settings as required for your network environment. To configure the settings, see the online manual on the "Network Utilities" CD-ROM.

INSTALLING THE PPD FILE

In order to print from a Macintosh, the PPD file must be installed. To install the PPD file to your Macintosh computer, follow the procedure below.

INSTALLATION IN MAC OS X

1 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

2 **Double-click the CD-ROM icon ( ) on the desktop.**

3 **Double-click the "MacOSX" folder.**

4 **Double-click the folder of the operating system version you are using.**

- In Mac OS X v10.1.5, double-click the "Version 10.1" folder.
- In Mac OS X v10.2.x, double-click the "Version 10.2" folder.

5 **Double-click the "AR-NB2-1" icon ( ).**

The installer window will appear.

Note

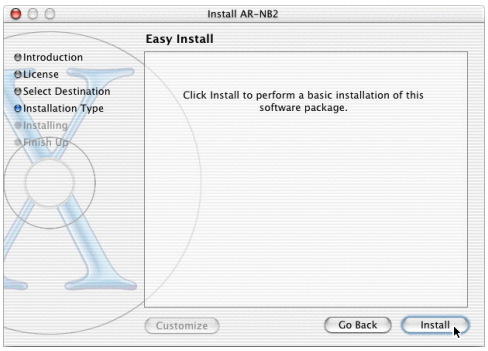
- If you are using Mac OS X v10.2.x, the "Authenticate" window will appear. Enter the password and click the "OK" button.
- If you are using Mac OS X v10.1.5, click the lock icon ( ), enter the password, and click the "OK" button.

6 **Click the "Continue" button.**

7 **The License Agreement window will appear. Make sure that you understand the contents of the license agreement, and then click the "Continue" button.**
A message will appear asking you if you agree to the terms of the license. Click the "Agree" button.

8 **Select the hard disk in which you wish to install the PPD file, and click the "Continue" button.**
Be sure to select the hard disk in which your operating system is installed.

9 **Click the "Install" button.**
Begin installation of the PPD file.



10 **When the message "The software was successfully installed" appears in the installation window, click the "Close" button.**

This completes the installation of the PPD file.

INSTALLATION IN MAC OS 8.6 - 9.x

1 **Insert the network expansion kit "Software" CD-ROM into your computer's CD-ROM drive.**

2 **Double-click the CD-ROM icon ( ) on the desktop.**

3 **Double-click the "MacOS" folder.**

4 **Double-click the "Installer" icon ( ).**

The installer window will appear.

5 **Click the "Install" button.**

6 **The License Agreement window will appear. Make sure that you understand the contents of the license agreement, and then click the "Yes" button.**

7 **Read the message in the window that appears and click the "Continue" button.**

Begin installation of the PPD file.
After the installation, a message prompting you to restart your computer will appear. Click the "OK" button and restart your computer.

This completes the installation of the PPD file.

INSTALLING THE SCREEN FONTS (Mac OS 8.6 - 9.x)

The screen fonts for Macintosh are contained in the "Font" folder of the PS3 expansion kit AR-PK1 PRINTER UTILITIES CD-ROM. Install the screen fonts as needed. The screen fonts are installed by copying the required screen font suitcase folders to your Macintosh.
Copy the screen fonts to the following folder:

- Mac OS 8.6 to 9.x: "Fonts" folder in the "System Folder"

Note

If you experience problems that may be due to the installed screen fonts, delete the copied font folder from the system.

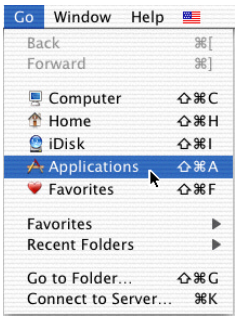
CONFIGURING THE PRINTER DRIVER

Follow the steps below to configure the machine's printer driver.

MAC OS X v10.2.x

1 **Make sure that the machine is powered on.**

2 **Select "Applications" from the "Go" menu.**

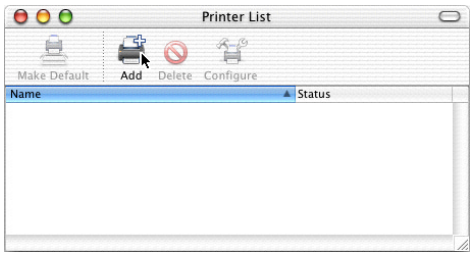


3 **Double-click the "Utilities" folder.**

4 **Double-click the "Print Center" icon (🖨).**
The "Printer List" window appears.

> **Note** If this is the first time you are installing a printer driver on your computer, a confirmation message will appear. Click the "Add" button.

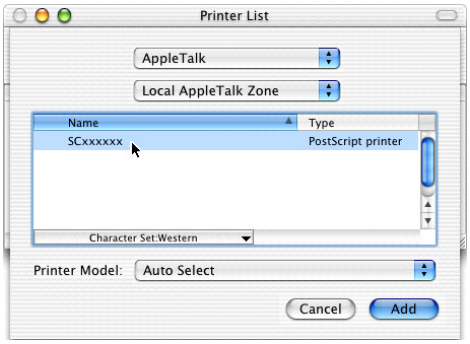
5 **Click "Add".**



6 **Select "AppleTalk" in the menu at the top of the window.**
A list of printers connected to the network will appear.

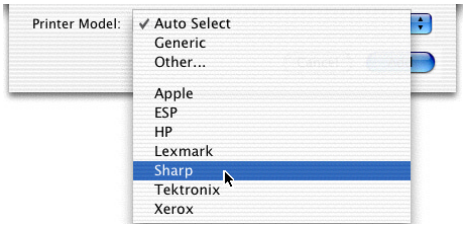
> **Note** If multiple AppleTalk zones are displayed, select the zone which includes the printer.

7 **Click the machine's model name in the list.**



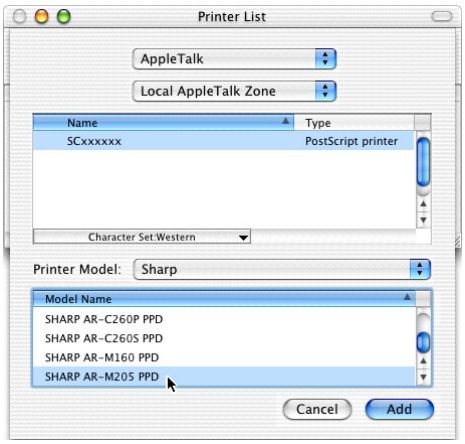
The name of the machine that appears is the name that was entered in the AppleTalk settings when the network settings were configured ("xxxxxx" is a sequence of characters that varies depending on your machine).

8 **Select "Sharp" in the "Printer Model" menu.**
The PPD file selection window appears.



Macintosh

9 Select the PPD file of the machine.

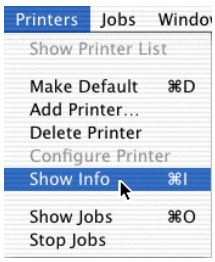


10 Click the "Add" button.

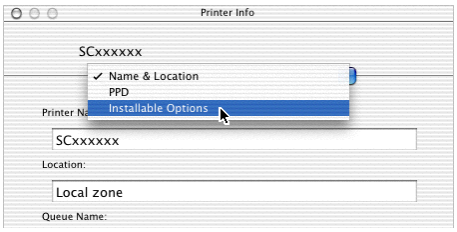
The machine is added to the list of printers.

11 Click the name of the machine in the "Printer List" window, and select "Show Info" from the "Printers" menu.

The "Printer info" window will appear.

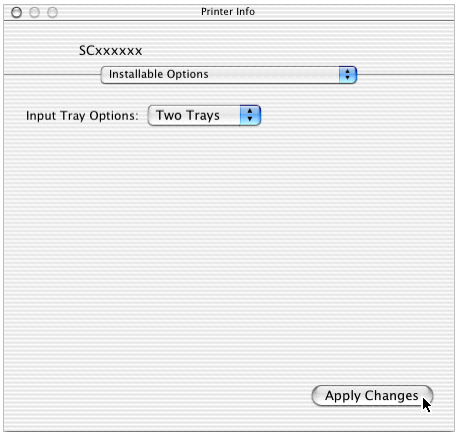


12 Select "Installable Options" in the menu.



13 Set the printer configuration based on the options that have been installed, and then click the "Apply Changes" button.

Set the printer configuration properly. If not, printing may not be executed properly.



14 Close the window.

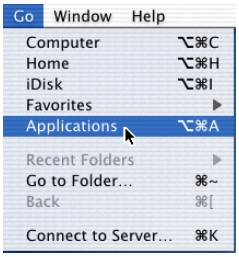
This completes the configuration of the printer driver.

Macintosh

MAC OS X v10.1.5

1 **Make sure that the machine is powered on.**

2 **Select "Applications" from the "Go" menu.**

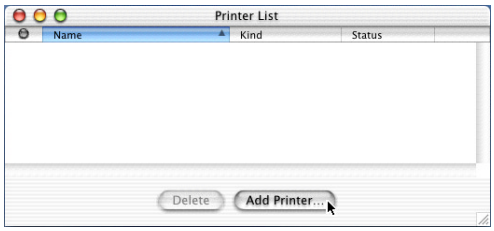


3 **Double-click the "Utilities" folder.**

4 **Double-click the "Print Center" icon ( ).**
The "Printer List" window appears.

> **Note** If this is the first time you are installing a printer driver on your computer, a confirmation message will appear. Click the "Add" button.

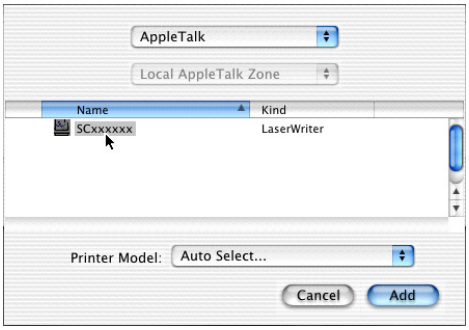
5 **Click the "Add Printer" button.**



6 **Select "AppleTalk" in the menu at the top of the window.**
A list of printers connected to the network will appear.

> **Note** If multiple AppleTalk zones are displayed, select the zone which includes the printer.

7 **Click the machine's model name in the list.**



The name of the machine that appears is the name that was entered in the AppleTalk settings when the network settings were configured ("xxxxxx" is a sequence of characters that varies depending on your machine).

8 **Click the "Printer Model" menu and select "Other" in the list of PPD files.**
The PPD file selection window will appear.

9 **Click the startup disk name, "Library", "Printers", "PPDs", "Contents", "Resources", "en.lproj", and select the PPD file with your model name.**

10 **Click the "Choose" button.**

11 **Click the "Add" button.**

This completes the configuration of the printer driver.

MAC OS 8.6 - 9.x

1 **Select "Chooser" from the Apple Menu.**

2 **Click the "LaserWriter 8" icon.**

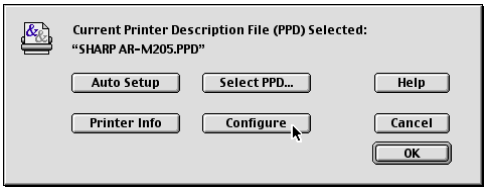
- The model name of your network-connected machine ("SCxxxxxx") appears in the "Select a PostScript Printer" list on the right. The name of the machine that appears is the name that was entered in the AppleTalk settings when the network settings were configured ("xxxxxx" is a sequence of characters that varies depending on your machine).
- If multiple AppleTalk zones are displayed, select the zone which includes the printer.

3 **Click the machine's model name ("SCxxxxxx") in the "Select a PostScript Printer" list.**

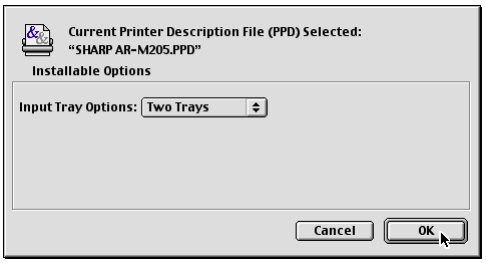
4 **Click the "Create" button.**

- If the "Select a PostScript™ Printer Description File" dialog box appears, select the PPD file of the machine and then click the "Select" button.
- If the "Select a PostScript™ Printer Description File" dialog box does not appear, follow these steps to select the PPD file manually when you return to the Chooser dialog box.
  1) Verify that the machine is selected in the "Select a PostScript Printer" list, and then click the "Setup" button and the "Select PPD" button.
  2) Select the PPD file of the machine, and then click the "Open" (or "Select") button.
  3) Click the "OK" button.

5 **Verify that the machine is selected in the "Select a PostScript Printer" list, and then click the "Setup" button and the "Configure" button.**



6 **Set the printer configuration based on the options that have been installed, and then click the "OK" button.**
Be sure to select the correct printer configuration. If not, printing may not take place correctly.



7 **Click the "OK" button to close the dialog box.**

8 **Click the Close box ( ) to close the Chooser.**

This completes the configuration of the printer driver.

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